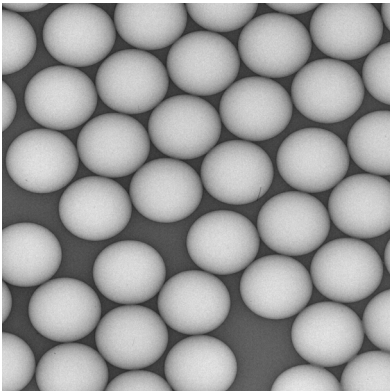


Thermo Scientific Duke Standards - 2000 Series Uniform Polymer Beads

Analyze wide size range material with confidence

- Traceability to the National Institute of Standards and Technology (NIST) enables reliable development, standardization and validation of most particle counting and sizing instruments.
- Wide distribution provides light scatter across a range of detectors, resulting in a more repeatable measurement
- Composed of polystyrene crosslinked with divinylbenzene, giving the bead excellent durability and chemical stability
- Excellent product stability results in confident instrument performance and compliance with most QC programs



Available in a range of discrete sizes from 5 μm to 40 μm , these highly uniform beads minimize the response of analytical systems to shape effects.



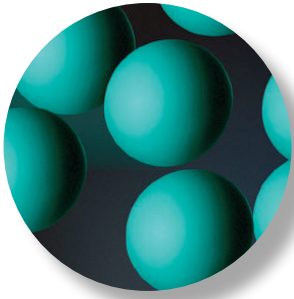
The Thermo Scientific 2000 Series of uniform polymer beads provide a wide distribution of the bead population as compared to the tighter distribution provided by our monodisperse 3000 or 4000 Series of size standards.

This makes them ideal for calibrating and developing any make of model particle size characterisation instruments used in laser diffraction and other methods when analyzing wide-size material such as concrete, food ingredients, pharmaceutical solids, slurries, powders, granules, grains, and more.

By providing third party traceability to NIST, the 2000 Series beads enable laboratories to satisfy ISO, ANSI/NCSL Z540, GMP/GLP and other such quality regulations.

In addition to containing a Certificate of Calibration and Traceability to NIST, the beads come packaged with a Safety Data Sheet with handling and disposal instructions. All packages are lot numbered for convenient after-the-sale technical service and support.

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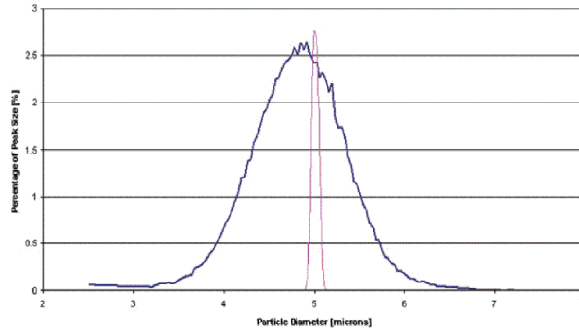
Applications

- Instrument development, calibration, validation: particles counters and particle sizers
- Instrument QC: check for instrument problems and shifts in laser function, check the calibration curve shape, etc.

Specifications

Composition	Polystyrene divinylbenzene
Fill volume	15 mL
Density	1.05 g/cm ³
Index of refraction	1.59 @ 589 nm (25°C)
Additives	Contains trace amounts of surfactants to inhibit agglomeration and promote stability
Concentration	1 % solids
Shelf life	≥ 12 months
Documentation	Package Insert Sheet, Safety Data Sheet available upon request
Storage and Handling	Unless otherwise stated, store at room temperature or refrigerate (2-8 °C) product when not in use but do not freeze. Store upright and keep bottle tightly sealed.

Nominal Diameter	Catalog Number
15 mL, 1 % solids	
Aqueous Suspensions, Calibrated by Optical Microscopy	
5 µm	2005A
6 µm	2006A
7 µm	2007A
8 µm	2008A
9 µm	2009A
10 µm	2010A
11 µm	2011A
14 µm	2014A
15 µm	2015A
20 µm	2020A
25 µm	2025A
30 µm	2030A
40 µm	2040A



The above graph compares the wide distribution of our 2005A (see blue line) particles with the more narrow distribution of our 4205A (see red line) particles. While both particles have a nominal diameter of 5 µm, the 2000 Series particles often give more repeatable results on specific types of laser diffraction instruments for analysis of wet and dry samples.

thermoscientific.com/particletechnology

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